

U.S. Architectural Products, Inc.

1117 Douglas Ave., Unit 1
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Versaroc Application Pointers for a Quality Installation

Valued Contractor Applicator,

U.S. Architectural Products and Versaroc are very appreciative of your business and it is of utmost importance that we do everything within reason to keep you, our end-user, informed and confident in the application of the Versaroc product. It is with this in mind we are submitting these recommendations for proper care and handling in order to avoid installation problems related to inclement weather exposure, fractures, pock-marks & punctures not only with this application, but all future applications by you of the Versaroc Product

Delivery, Storage, Handling, and Installation:

1. Panels are normally delivered to site in factory crates that are bound with plastic sheet protection, wooden edge protection and wooden pallets to facilitate forklift handling. When transporting loose panels by truck, they must be laid flat and fully protected against edge damage and protected from weather with waterproof covering. When hand carrying single panels, they must be carried on edge with the short side held vertically.
2. Deliver, store and handle materials to prevent breakage, warping or damage by water.
3. Acclimatize materials by storing on site not less than three days before installation.
4. Materials to be stored indoors on leveled dunnage not exceeding 24" on centers. If temporarily stored outdoors, boards must be elevated above ground, and protected from the weather with waterproof covering.
5. Panels to be stored flat and not on edges.
6. Never install Versaroc panels that are wet. If panels have become wet, they must be allowed to dry before installation.
7. Sealed Versaroc panels are factory sealed against temporary moisture exposure. Unsealed Versaroc panels may be subject to moisture absorption. When unsealed Versaroc panels are installed on projects that are open to the weather, care must be taken to avoid long-term exposure to inclement weather such as standing snow or icing conditions.
8. Steel framing support members must have minimum 2" wide flanges to accommodate proper fastening requirements of Versaroc panels.

Recommendations on avoiding fractures, pock-marks or punctures

Versaroc is a durable and strong building panel composed of Portland cement and mineralized wood chip. Versaroc performs well under the live-load conditions in the designed assembly being installed. However, like Plywood or OSB board it is imperative that a certain level of care is taken with these panels on the jobsite. Although Versaroc is made from Portland cement reinforced by wood particles it does not respond to impact and jobsite loading conditions the same as poured concrete. Based on our observations in the field and input by professionals such as you, we are submitting the following recommendations to avoid any occurrences of fractures, pock-marks, punctures, excessive concentrated and point loading.

1. It is recommended to utilize proper "dunnage" and/or structural building panels such as plywood under stored building materials like masonry units, framing members, sheet goods, etc. Not implementing this recommendation may result in excessive point-loading which in turn may cause fractures, pock-marks or punctures.
2. Impact situations such as dropped block, brick or framing members may result in fractures, pock-marks or punctures. Precautions must be taken to avoid these types of impacts from occurring on the Versaroc panels - even at minimum heights of 2 feet.

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3. Ladders, Scaffolding, Hoists, Equipment, etc. must have a piece of plywood, or provisions taken to distribute the loading over the Versaroc Panels and should span multiple structural members. Provisions should be taken to avoid point and concentrated loading in excess of the assemblies design capabilities. Roofing materials also should be distributed over the roofing structure to avoid high concentrated loads during construction and installation.

Recommended repairs of fractures, pock-marks & punctures

Every panel with fractures' pock-marks or punctures must be repaired or replaced immediately. All repairs should utilize materials compatible with Portland cement. All fractures, pock-marks or punctures repairs must receive structural bridging underneath to support the panel at these weak-points.

Designed Penetrations- Penetrations in excess of 2" diameter used for passage of ductwork, plumbing or electrical, etc. should have cross bridging or strapping laid in to either side of the penetration spanning between the adjacent structural members.

Use perimeter joists to rim all stairwells and elevator shaft penetrations especially during construction at which point the decking is most susceptible to excessive loading.

Fractured board- A fracture in an installed deck panel in most cases should require the replacement of that panel. If the fracture does not span multiple structural members a repair may be considered that will reinforce the fracture from the backside using another piece of Versaroc supported from below by bridging between the structural members.

Punctures , chips and irregular joints- may be repaired or filled with a thin set acrylic based repair or leveling compound. Due to the movement of most structures, a flexible or elastomeric repair system should be considered for best results.

Additional Jobsite Considerations

1. Adhesive used in all board-joints on floor deck applications - including both tongue & groove and square edges. All board joints are to receive Pemco 5100 noncombustible polyurethane based adhesive or equal.

2. Proper panel layout. Be sure all tongue & groove edges are tightly interlocked and that the long dimensions of the board lie perpendicular to the framing members. All square edge board edges should fall on a structural member and also be tightly abutted to the adjacent sheet.

3. Fasteners and fastener locations need to be within specification. Screw fasteners must be corrosion resistant with self-countersinking heads, such as Hilti PWH SD Cement Board Screw, No. 00372760 (#8 x 1-5/8") or Grabber Part No. HS8158JBWG2 (#8 x 1-5/8") or equal, #8 diameter minimum with self-drilling 'TEK' point for metal framing are recommended. The length of the fastener to be selected should be 2 to 3 times the board thickness. Surface treatments being applied should always be considered when selecting the appropriate fastener. Nails need to be 'ringed' or 'spiral' and the length should be 3 to 3.5 times the thickness of the board. Please review fastener and fastener pattern information published in our catalog or on our website at www.architecturalproducts.com. Proper fasteners and fastener locations are critical to successful deck installations and optimum performance of the assembly. Note that the floor finish systems should be considered when selecting the decking attachment fastener. The choice of self-drilling / self-countersinking screws would not only result in an optimum deck installation, but also would ensure a smooth surface onto which to apply your floor treatment.

4. Co-planer (even) steel assembly on which to attach the decking - The steel structure to which the Versaroc decking is to be applied should be fairly even and supportive of the attachment. Fasteners should not be protruding above the height of the joist surface and joist, beam and rim joists should be fairly even. Variations in co-planarity of the steel joist system can lead to voids in support of the decking and thereby cause stress cracks as the deck is forced into level and comes under load. Use shim plates (strips or squares of flat stock) where necessary to provide uniform support. Care should be taken at connection from floor to rim joists and where girder crossover occurs. These are proven to be areas of uneven support where fractures may occur as the system comes under load.

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Please feel free to contact us at any time for technical/application support @ 800-243-6677.

Thanks again for your attention to quality and professionalism.

The Staff at US Architectural Products